CLAIMS

1. An implantable delivery device for delivery of at least a first therapeutic agent into a target tissue, comprising:

a housing, said housing comprising a reservoir with a drug release port for release of at least a first therapeutic agent into a target tissue, said reservoir having at least a first wall that is substantially impermeable to a first therapeutic agent to be placed therein,

a sealing base for sealing said release port to a target tissue, wherein when said release port is sealed to a target tissue a first therapeutic agent in said reservoir is substantially prohibited from release by said device other than through said release port into the target tissue, and

an attachment mechanism to facilitate sealing of said release port to a target tissue, said attachment mechanism comprising at least one member of the group consisting of a sufficient amount of an adhesive for adhering said sealing base to a target tissue, a suture holder for engaging at least one suture operatively attached to the surrounding tissue, and a band for engaging said device with a target tissue.

2. The device of claim 1, wherein it is implanted with an empty or therapeutic agent filled reservoir.

3. The device of claim 1, wherein it is connected to a refilling port through a tube.

4. The device of claim 1, wherein said tube is connected to said reservoir by means of a valve.

5. The device of claim 1, wherein said valve comprises at least one hollow cavity.

6. The device of claim 1, wherein the refilling port is implanted is a distal site from the device location.

7. The device of claim 1, wherein the refilling port is composed of a self-sealing material.

8. The device of claim 1, wherein said self-sealing material is chosen from the class of silicone elastomers, synthetic rubber and latex.

9. The device of claim 1, wherein the refilling port has the shape of a drum.

10. The device of claim 1, wherein said drum comprises at least one septum.

11. What is of claim 1, wherein said septum is composed of a self-sealing material preferentially selected from the classes of latex, synthetic rubber and silicone elastomers.

12. The device of claim 1, wherein said drum is composed of one or a plurality of cavities.

13. The device of claim 1, wherein said cavities are connected to at least one septum.

14. The device of claim 1, wherein said septum is stained by a visually distinguishable dye.

15. The device of claim 1, wherein said septum is marked by an imaging-sensitive dye.

16. The device of claim 1, wherein said septum is identifiable by imaging techniques chosen from the methods of magnetic resonance imaging, x-ray, computerized tomography and ultrasound.

17. The device of claim 1, wherein at least one cavity is connected to at least one tube.

18. The device of claim 1, wherein at least one tube is connected to at least one reservoir.

19. The device of claim 1, wherein said drum has an architecture to facilitate its implantation onto or into tissues.

20. The device of claim 1, wherein said tube is connected to a distal reservoir.

21. The device of claim 1, wherein said distal reservoir carries at least one therapeutic agent.

22. The device of claim 1, wherein said distal reservoir is an osmotic pump.

23. The device of claim 1, wherein said distal reservoir is an iontophoretic pump.

24. The device of claim 1, wherein said distal reservoir is a mechanical pump.

25. The device of claim 1, wherein said distal reservoir comprises at least a refilling septum.

26. The device of claim 1, wherein said septum is composed of an agent preferentially selected from the classes of latex, synthetic rubber and silicone.

27. The device of claim 1, wherein said distal reservoir has an architecture that facilitates its implantation and positioning in body locus.

28. What is of claim 1, wherein it delivers a therapeutic or prophylactic agent.

29. The device of claim 1, wherein said therapeutic or prophylactic agent is selected from groups of agents with capability to the diffuse through the membrane or tissue surface the device is attached to.

30. The device of claim 1, wherein it comprises at least an adhesive layer.

31. The device of claim 1, wherein said adhesive layer is applied during the implantation procedure.

32. The device of claim 1, wherein said adhesive layer is a pressure-sensitive adhesive (PSA..

33. The device of claim 1, wherein said PSA is preferentially selected from the groups of hydrocolloid, hydrogel, acrylate and silicone.

34. The device of claim 1, wherein said adhesive layer is delineated by at least a release liner.

35. The device of claim 1, wherein said reservoir carries a solid, liquid, viscous or gel-state therapeutic agent.

36. The device of claim 1, wherein said solid therapeutic agent is incorporated into said reservoir by methods chosen from compression, free form and encapsulated.

37. The device of claim 1, wherein said therapeutic agent is associated with slow-release formulation.

38. The device of claim 1, wherein said release port is delineated by a structural element to sustain said therapeutic agent in the reservoir.

39. What is of claim 1, wherein said structural element is chosen from the group of crossing band, strip, net and flange.

40. The device of claim 1, wherein said structural elements are composed of a biocompatible and non-dissolvable materials preferentially selected from the classes of poly-ester, poly-orthoester, silicone, polyethylene, polypropylene and polyurethane, metals and associations thereof.

41. The device of claim 1, wherein said structural elements are composed of a biocompatible and bioerodible materials preferentially chosen from the classes of glycolic acid, lactic acid, poly-ethylene-glycol, poly-vinyl-alcohol, poly-vinyl-pirrolidone and methacrylates.

42. The device of claim 1, wherein said release port is delineated by a dissolvable layer.

43. The device of claim 1, wherein said dissolvable layer is chosen from the groups of of glycolic acid, lactic acid, poly-ethylene-glycol, poly-vinyl-alcohol, poly-vinyl-pirrolidone and methacrylates, cellulose, starch and gelatin.

44. The device of claim 1, wherein said release port is delineated by a permeable membrane.

45. The device of claim 1, wherein said membrane is chosen from the group of ethylene-vinyl acetates.

46. The device of claim 1, wherein said valve comprises at least one valve to prevent overfilling.

47. The device of claim 1, wherein said valve comprises a reflux mechanism to prevent reflux through the refilling tube.

48. The device of claim 1, wherein said reservoir comprises an escape or venti valve to prevent overpressure in the reservoir due to overfilling.

49. The device of claim 1, wherein said reservoir is constantly filled by a pressure-controlled pump.

50. The device of claim 1, wherein said refilling port can be implanted by means of suturing, apposition, interposition or attachment to a mammalian locus.

51. The device of claim 1, wherein it carries a diagnostic agent.

52. The device of claim 1, wherein said refilling port is composed of self-sealing septum.

53. The device of claim 1, wherein said septum is part of a valve and said valve is connected to said reservoir or reservoir wall.

54. The device of claim 1, wherein said septum is preferentially composed of a material selected from the groups of silicone elastomer, synthetic rubber and latex.

55. The device of claim 1, wherein it comprises at least one content-holder accessory chosen from the categories of flange, strip, band, platform, net and fenestration.

56. The content-holder accessory of claim 55, wherein it is composed of a material chosen from the class of poly-ethylene, silicone, hydrogels, poly-orthoester, poly-glycolic

acid, poly-lactic acid, poly-caprolactone, polyvinyl-alcohol, polyvinyl-pylirridone, metal and hydrogel.

57. The platform of claim 41, wherein it comprises at least one fenestration.

58. The fenestration of claim 57, wherein it controls the diffusion interface between the device of claim 1 and said targeted tissue.

59. The fenestration of claim 43, wherein it comprises at least a first membrane.

60. The membrane of claim 44, wherein it is biodegradable.

61. The membrane of claim 44, wherein it is chosen from the class of poly-orthoester, poly-glycolic acid, poly-lactic acid, poly-caprolactone, polyvinyl-alcohol, polyvinyl-pylirridone, hyaluronic acid, fibrin, methyl-cellulose, collagen and gelatin.

62. The membrane of claim 44, wherein it is permeable to said therapeutic agent.

63. The membrane of claim 43, wherein it is chosen from the class of ethylene-vinyl acetate.

64. The device of claim 1, wherein it is aimed to deliver therapeutic and prophylactic agents to tissues in a selective and controlled manner.

65. The device of claim 1, wherein it is aimed to treat or mitigate acute or chronic conditions of mammalian organs and tissues.

66. The device of claim 1, wherein it is aimed to deliver therapeutic agents to the posterior segment of the eye after sealed attachment to ocular sclera.